REMARKS

While it is believed that the present depending claims satisfy the requirements of 35 USC §112, in order to expedite prosecution, Applicants have amended independent claims 17 and 31 in an earnest effort to address the rejections raised by the Examiner.

More particularly, claim 17 has been amended to positively recite the entrance mirror and the exit mirror. Support is found on page 15, lines 1-2 of the original specification.

The rejection to claim 31 as failing to recite an orientation for the amount of crystalline layer is not understood. Claim 31 (and also claim 17) recite that the monocrystalline layer and the active laser material have the same orientation ("and the ... orientation of both said active laser material and the said monocrystalline layer ..."). Notwithstanding, claims 17 and 31 have been slightly amended in an earnest effort to clarify that the specific orientation of both the active laser material and the monocrystalline layer are the same.

The Examiner's suggestion to provide drawings is noted. However, it is admitted that one skilled in the art would have no difficulty in understanding the claimed invention as currently described in the specification.

The foregoing Amendment makes no claim changes as would require further search by the Examiner. All of the claim changes were merely clarifying in nature. Accordingly, entry of the foregoing Amendment, and allowance of the application are respectfully requested.

Pursuant to 37 CFR § 1.121, a marked copy of the amended claims showing changes made therein accompanies this Amendment.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 08-1391.

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted via facsimile to the United States Patent and Trademark Office, Attn. Examiner Zahn at 703-872-9319 on March 17, 2003.

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MARKED COPY OF AMENDED CLAIMS

SERIAL NO. 09/582,256

DOCKET NO. BREV 12923

MARKED CLAIMS SHOWING CHANGES MADE:

17. (Twice Amended) A laser cavity comprising:

a substrate made of a doped or undoped active laser material $Y_3Al_5O_{12}$ (YAG) on which a monocrystalline layer of saturable absorbent material made of doped YAG is deposited directly by liquid phase epitaxy, in which said active laser material has a [100] orientation, and said monocrystalline layer of saturable absorbent material is deposited with the same [100] orientation;

an entry mirror deposited directly on the active laser material substrate;

and an exit mirror deposited on the monocrystalline layer of saturable absorbent material;

wherein said doped or undoped active laser material YAG, said monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on said active laser material by liquid phase epitaxy, and the specific [[100]] orientation of both said active laser material [100] and the said monocrystalline layer [100] achieves controlled polarization of the laser cavity.

31. (Twice Amended) A process for the collective production of triggered microlaser cavities comprising the steps of:

supplying a substrate made of a doped or undoped $Y_3Al_5O_{12}$ (YAG) active laser material with a [100] orientation in the shape of a sheet with parallel faces polished on its two faces;

depositing a monocrystalline layer of doped YAG saturable absorbent material on one of the faces of the said $Y_3Al_5O_{12}$ (YAG) active laser material, by liquid phase epitaxy;

polishing the saturable absorbent monocrystalline layer thus deposited;

depositing entry and exit mirrors on the two polished faces of the cavity; and

cutting out the substrate - monocrystalline layer - mirrors complex thus obtained;

wherein said doped or undoped active laser material YAG, said monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on said active laser material by liquid phase epitaxy, and the specific [[100]] orientation of both said active laser material [100] and the said monocrystalline layer [100] achieves controlled polarization of the laser cavity.